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Notice of Allowability	Application No.	Applicant(s)	
	09/875,364	LEE ET AL.	
	Examiner	Art Unit	
	Khanh Tran	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed on 01/18/2006.
2. ☒ The allowed claim(s) is/are 1-29, which have been renumbered as set forth in the Office action.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

1. The Amendment filed on 01/18/2006 has been entered. Claims 1-29 are pending in this Office action.

2. Claims have been renumbered as shown below, respectively:

claim 13 renumbered as claim 6;

claims 6-11 renumbered as claims 7-12;

claim 12 renumbered as claim 13.

Response to Arguments

3. Applicant's arguments, see pages 13-15 of Applicants' Remarks, filed on 01/18/2006, with respect to claims 1-11, 13-15 and 22-28 have been fully considered and are persuasive. The rejection of claims 1-11, 13-15 and 22-28 has been withdrawn.

4. The objection of claims 4-5 and 13 has been withdrawn after Applicants amended claims to correct the informalities.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

5. Regarding claim 1, claim 1 is allowable over prior art of record. Applicants correctly point out in the Remarks that Hase et al. (US 5,636,254) does not teach the claimed limitations "a control unit for generating an adjustment control signal responsive to the first output signal and the master output signal".

6. Regarding claim 6, claim 6 is allowable over prior art of record. Applicants correctly point out in the Remarks that Hase et al. (US 5,636,254) does not teach the claimed limitations "a control unit for receiving an output signal of the master variable delay unit and the first output signal to generate the adjustment control signal".

7. Regarding claim 12, claim 12 is allowable over prior art of record because the cited reference, Hase et al. (US 5,636,254), does not teach or suggest a signal transmission circuit as set forth in the claimed application.

8. Regarding claim 14, claim 14 is allowable over prior art of record. Applicants correctly point out in the Remarks that Hase et al. (US 5,636,254) does not teach the claimed limitations "a controlling unit for comparing the first output signal and the first temporary signal to generate an adjustment control signal" and furthermore "wherein the adjustment control signal has a voltage level proportional to the phase difference according to a first proportionality constant" and "the internal phase delay has a magnitude proportional to the voltage level of the adjustment control signal according to a second proportionality constant".

9. Regarding claim 16, claim 16 is allowed over prior art of record since the cited references (Hase et al. US 5,636,254), taken individually or in combination, do not teach a signal transmission circuit comprising "wherein the controlling unit comprises: a plurality of delay elements. each of which delays the first temporary signal by a predetermined delay time and outputs a delayed output signal; phase detectors corresponding the plurality of delay elements, each of the phase detectors for outputting phase comparison signals by comparing the phase of one signal of the output signals of the delay elements with the phase of the first signal transmission path and an encoder for receiving each of the phase comparison signals output from the phase detectors and generating the control code".

10. Regarding claim 17, claim is allowed over prior art of record since the cited references (Hase et al. US 5,636,254), taken individually or in combination, do not disclose a data latch circuit as set forth in the application claim.

11. Regarding claim 22, claim is allowed over prior art of record since the cited references (Hase et al. US 5,636,254), taken individually or in combination, do not disclose a signal transmission method comprising the steps of "generating a control signal corresponding to the phase difference obtained by comparing the phase of an output signal of the first signal transmission path with the phase of an output signal of the master variable delay unit" and "controlling the delay time of the master variable delay unit by applying the control signal to the master variable delay unit" and

"controlling the delay time of the slave variable delay unit to be identical with the delay time of the master variable delay unit by applying the control signal to the slave variable delay unit".

12. Regarding claim 23, claim is allowed over prior art of record since the cited references (Hase et al. US 5,636,254), taken individually or in combination, do not disclose "a master delay unit for generating a master delay signal responsive to the first temporal signal" and "a control unit for generating the adjustment control signal responsive to the first temporary signal and the first output signal".

13. Regarding claim 25, claim is allowed over prior art of record since the cited references (Hase et al. US 5,636,254), taken individually or in combination, do not disclose "a controlling unit comprising a master variable delay unit for receiving the first temporary signal and an adjustment control signal" and "a control unit for comparing the output signal of the master variable delay unit and the first output signal, and generating the adjustment control signal".

14. Regarding claim 26, claim is allowed over prior art of record since the cited references (Hase et al. US 5,636,254), taken individually or in combination, do not disclose "a master variable delay unit to generate a master output signal responsive to a control signal and the clock signal delayed by the first delay time" and "a control to generate the control signal responsive to the phase signal".

15. Regarding claim 27, claim is allowed over prior art of record since the cited references (Hase et al. US 5,636,254), taken individually or in combination, do not disclose "a controlling unit comprising a master variable delay unit for receiving the clock temporary signal and an adjustment control signal, and a control unit for comparing the output signal of the master variable delay unit and the clock output signal, and generating the adjustment control signal" and "a slave variable delay unit for receiving the adjustment control signal to adjust an internal delay time thereof, and for receiving the data temporary signal for outputting a data output signal which is delayed by the internal delay time from the data temporary signal".

16. Regarding claim 28, claim is allowed over prior art of record since the cited references (Hase et al. US 5,636,254), taken individually or in combination, do not disclose a signal transmission circuit as set forth in the application claim.

17. Regarding claim 29, claim is allowed over prior art of record since the cited references, taken individually or in combination, do not disclose a signal transmission circuit comprising a controlling unit and a second digital code controlled variable delay unit as set forth in the application claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCT

Khanh Cong Tran

04/02/2006

Primary Examiner